REMARKS

Claims 1 - 9 are pending, of which claims 1 and 6 are independent. Claims 2-9 are amended as shown above solely for the purpose of correcting typographical errors and improving readability. None of the present claim amendments are made for purposes related to patentability, and thus the scope of each of claims 1-9 remains unchanged.

Claim Rejections – 35 U.S.C. § 103

1.   Claims 1, 2 and 3 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over USPN 5,787,258 to Costa et al. ("Costa") in view of US Pub. No. 2003/0017845 to Doviak et al. ("Doviak") This rejection is respectfully traversed.

Claim 1 recites, *inter alia*:

"a loop having therein a plurality of loop network monitors, each loop network monitor having a RS-485 port connected to a host which transmits and receives data, and two further RS-485 ports by way of which the monitors are connected into the loop."

The Office Action states that Costa utilizes "two RS-485 ports". Applicant agrees with this statement, but respectfully traverses the Office Action's later statement that, "it would have been obvious to one of ordinary skill in the art at the time of the claimed invention ... to separate the network monitor from the host and connect the two devices via an RS-485 ... "

Doviak notes that routers can transmit data between networks using different data link layers such as a Token-Ring, Ethernet, etc. Applicant disagrees that Doviak shows a router connected to a communications network in Figure 1. Figure 29 shows a router 200 connected to the mobile device 52 and then connected to a network interface 214A-D that is then connected to a telephone network 58 and a radio infrastructure 56. The only things connected to network 10 are controllers 15 and 20. The router, not shown, is placed between the mobile device 52 and the remote network controller 20 as shown in Figure 29. Figure 30 of Doviak further details the router 200.

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Applicant further disagrees that "In light of these two references and the lessons learned from them," that it would be obvious to "separate the network monitor from the host and connect the two devices via an RS-485 port." This arrangement is only shown in the present invention and thus the rejections uses hindsight reconstruction to make this assertion. There is no suggestion in Doviak that the local device 12 is the "host" and that the controllers 15 are the "monitors" recited in claim 1, which suggestion is required to meet the rejection's assertion.

Therefore, claim 1 is believed to be allowable over the alleged combination of references. Dependent claims 2-3 are also believed to be allowable over the combination of Costa and Doviak, at least by virtue of their respective dependencies on allowable claim 1, as well as for their added features.

2.   Claim 4 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Costa in view of Doviak and further in view of US Pub. No. 2002/0159402 to Binder. This rejection is respectfully traversed.

Claim 4:

The above traverses are incorporated herein. First, with respect to claim 1, from which claim 4 depends, Binder fails to cure the deficiencies noted above of the alleged combination of Costa and Doviak. Additionally:

Claim 4 recites, *inter alia*:

"wherein each of said further ports comprises a termination under the control of a microprocessor of a loop monitor, an RS-485 transceiver and means for isolating the host from the loop."

The terminations on each port of the monitor are controlled by the microprocessor based upon whether the monitor is a master or slave in the network. If it is a master, the contact 24 is open and thus the terminations are activated to indicate the end of the loop. See page 5, lines 3 to 18, of Applicant's specification.

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Costa in Figure 1 shows each panel having a left and right SCC within the CPU. The SCC's operation is described in col. 13, lines 28 to 33, as being a transceiver and internal drivers. Disabling of the link is accomplished by forcing the left and right drivers into the receive condition and thus this becomes an end panel in the loop. As noted, the drivers are a part of the CPU. Applicant disagrees that Binder discloses, "the use of a RS-485 transceiver using termination at each end of a connection." Par.'s 57-58. Referring to Figure 1 of Binder, the modems 506 and 512 can be standard RS-485 ... or any simple similar data interface transceiver." These modems are not at the end of a connection as seen in Figure 1 of Binder. Line 503, for example, ends at line interface 502, not at the modem 506.

No reference suggests that the terminations are inactive or active based upon whether the monitor is a slave or master and controlled by a microprocessor in the monitor. The drivers are not terminations in the SCC's. In claim 4, terminations are in the RS-485 ports on the network line. This is not shown or suggested by the alleged combination of references.

Therefore, claim 4 is believed to be in condition for allowance.

3.   Claim 5 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Costa in view of Doviak and in further in view of Desmarais (Desmarais, Louis. Applied Electro-Optics. Prentice Hall 12/5/1997) and US Pub. No. 2003/0084112 to Curray et al. ("Curray"). This rejection is respectfully traversed.

Claim 5:

The above traverses are incorporated herein. First, with respect to claim 1, from which claim 5 depends, Curray fails to cure the deficiencies noted above of the alleged combination of Costa and Doviak and Desmarais. Also:

Claim 5 recites, *inter alia*:

"wherein each of said means for isolating comprises an opto coupler."

As noted on page 6, lines 10 to 14, of Applicant's specification, the isolator 38 is in the form of an opto coupler which converts the incoming signal to light and then back to an electric

signal whereby [electrical] isolation [occurs] between the wire pair 12 ... and the router logic 32 and micro controller 30."

Curray is directed at a power monitoring system in which substantial power spikes are possible up to 15 kV electrostatic discharges.

In an embodiment of the present invention, the isolator or opto coupler is used to separate the voltages on the wire pair 12 to levels acceptable to the router logic 32 and the micro controller 30. It is further not obvious to a person of ordinary skill in the art since both Costa and Doviak do not use isolators when dealing with networks.

Therefore, claim 5 is believed to be allowable over the alleged combination of Costa, Doviak, Desmarais, and Curray.

4.   Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Costa in view of Doviak and further in view of Doviak. This rejection is respectfully traversed.

Independent claim 6 is similar to claim 1, but does not have multiple monitors and is directed at a network loop monitor itself. The subject matter of dependent claim 7 is similar to the subject matter of dependent claim 3. Accordingly, the above traverses of Costa and Doviak made with respect to claims 1 and 3 are incorporated and reasserted here with respect to claims 6 and 7.

Thus, claims 6 and 7 are believed to be allowable over the alleged combination of Costa and Doviak.

5.   Claim 8 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Costa in view of Doviak and further in view of Binder. This rejection is respectfully traversed.

The subject matter of claim 8 is similar to the subject matter of claim 4. Accordingly, the above traverse of Costa, Doviak and Binder made with respect to claim 4 is incorporated and reasserted here with respect to claim 8.

Therefore, claim 8 is believed to be allowable over the alleged combination of Costa, Doviak, and Binder.

6.   Claim 9 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Costa in view of Doviak and further in view of Desmarais and Curray. This rejection is respectfully traversed.

The subject matter of claim 9 is similar to the subject matter of claim 5. Accordingly, the above traverse of Costa, Doviak, Desmarais and Curray made with respect to claim 5 is incorporated and reasserted here with respect to claim 9. Therefore, claim 9 is believed to be allowable over the alleged combination of Costa, Doviak, Desmarais and Curray.

CONCLUSIONS

In view of the foregoing, Applicant respectfully submits that this application is now in condition for allowance and should now be passed to issue.

The Examiner is respectfully invited to contact the undersigned if there are any remaining issues that can be resolved by telephonic communication.

Favorable action is respectfully requested.

Respectfully submitted,

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